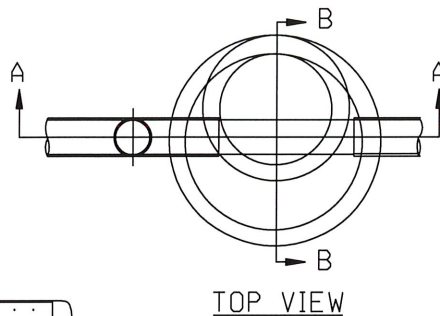


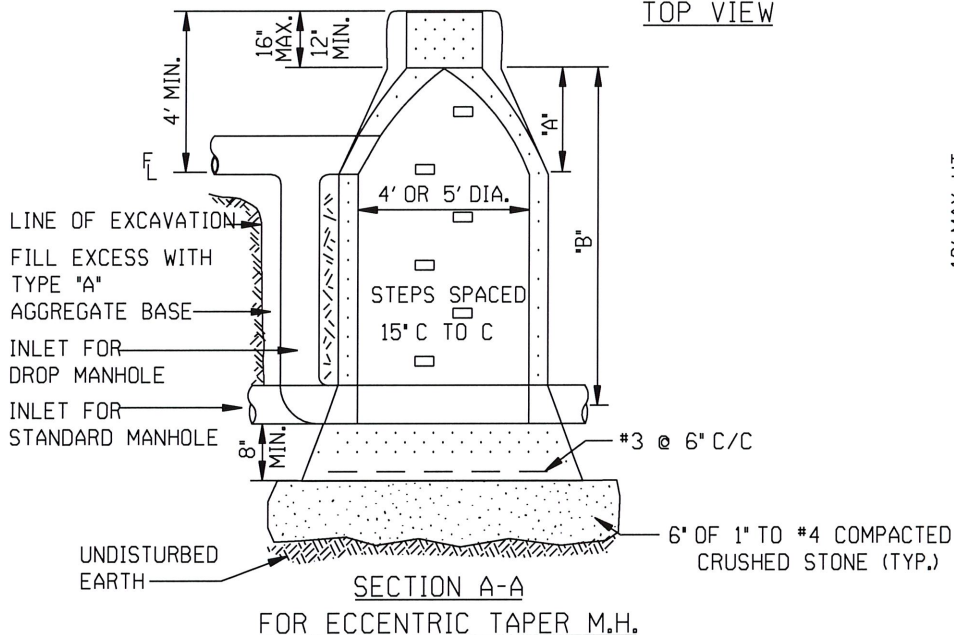
FOR 4' AND 5' MANHOLE;  
IF 'B' IS LESS THAN 7'-0"  
USE FLAT SLAB TOP MANHOLE

FOR 4' M.H.;  
A=2'-6" MIN. TO 4'-0" MAX.  
C=24"

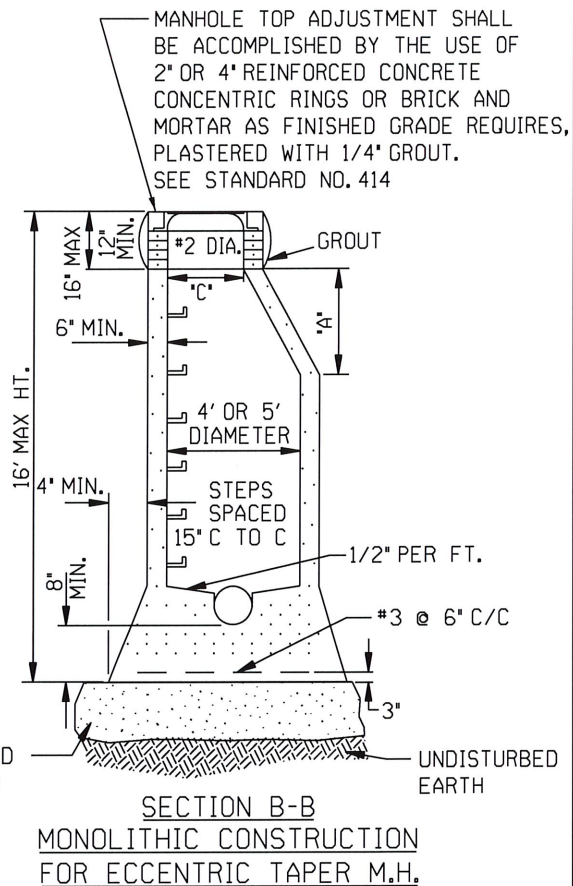
FOR 5' M.H.;  
A=3'-6" MIN. TO 4'-0" MAX.  
C=30"



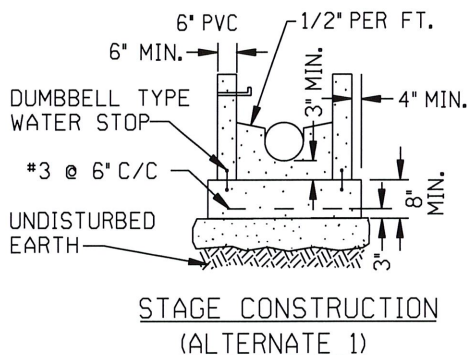
TOP VIEW



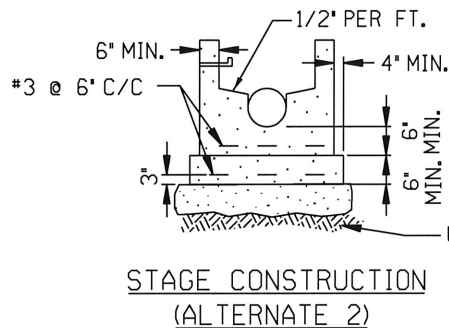
SECTION A-A  
FOR ECCENTRIC TAPER M.H.



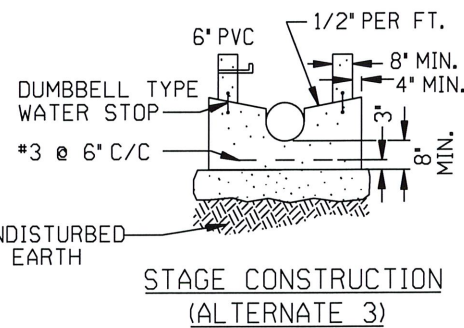
SECTION B-B  
MONOLITHIC CONSTRUCTION  
FOR ECCENTRIC TAPER M.H.



STAGE CONSTRUCTION  
(ALTERNATE 1)



STAGE CONSTRUCTION  
(ALTERNATE 2)



STAGE CONSTRUCTION  
(ALTERNATE 3)

#### NOTE:

1. CAST IN PLACE MANHOLES SHALL HAVE ECCENTRIC ENTRANCES AND SHALL BE EITHER THE FLAT SLAB OR ECCENTRIC TAPER TYPE SUBJECT TO THE SPECIFIED RESTRICTIONS.
2. STEP DETAILS SHALL BE AS SHOWN ON THE STANDARD DETAIL FOR MANHOLE STEPS (STANDARD NO. 314).
3. LOW SLUMP CONCRETE SHALL BE PLACED IN THE FOOTINGS AND LOWER WALLS AND SHALL BE PLACED AND VIBRATED IN ONE FOOT LIFTS.
4. AN INSPECTOR MUST BE PRESENT BEFORE AND DURING THE PLACEMENT OF THE CONCRETE.
5. THIS MANHOLE SHALL NOT BE USED IN PAVED STREETS OR OTHER TRAVELED AREAS.
6. THE CONCRETE MUST SET FOR 48 HOURS BEFORE PIPE INSIDE OF MANHOLE IS TRIMMED.
7. (ALTERNATE 3) INVERT MUST BE FORMED AT TIME OF BOTTOM POUR.
8. WATER STOPS MAY BE ELIMINATED IF BARREL OF MANHOLE IS POURED WITHIN 4 HOURS AFTER BASE IS POURED AND PROVIDED BASE IS CLEANED OF ALL MUD, SILT, AND DEBRIS.
9. THE TOP STEP SHALL BE NOT MORE THAN 27" AND NOT LESS THAN 18" FROM THE TOP OF THE LID.
10. THE MINIMUM INVERT DEPTH SHALL BE 3/4 TIMES THE PIPE DIAMETER.

8" TO 12" PIPE = M.H. 4' I.D.  
15" TO 21" PIPE = M.H. 5' I.D.  
24" TO 36" PIPE = M.H. 6' I.D.  
LARGER THAN 36" = SPECIAL M.H.

STANDARD DETAIL  
SANITARY SEWER MANHOLE WITH TAPER

CITY OF TULSA, OKLAHOMA  
ENGINEERING SERVICES DEPARTMENT

DRAWN BY: R.M.O.  
CHECKED BY: HAS  
DATE: MARCH 2022

APPROVED  
*[Signature]*

NOT TO SCALE

STANDARD NO. 356